

IN THE CLAIMS:

Please amend Claims 1, 2, 22, 35, 36 and 44, 46 and 47 as

follows:

1. (Currently Amended) A syringe for use with a powered injector to inject a fluid into a patient, the syringe comprising:

B1
a length of material adapted to propagate electromagnetic energy therethrough along the length of the material, the length of material comprising including at least a first indicator positioned along the length of material, the first indicator a plurality of indicators along the length of the material at unique predetermined positions along the length of material, each of the indicators being adapted to interact with at least a portion of the energy being propagated through the length of material along the length of the material in a manner that is detectable, ~~the first indicator~~ the predetermined positions of the indicators providing information about the syringe configuration.

2. (Currently Amended) The syringe of Claim 1 ~~comprising a plurality of indicators along the length of the material at unique predetermined positions,~~ wherein each of indicators in positioned at a unique predetermined position along the length of material in a direction in which the electromagnetic energy is propogated through the length of material each of the indicators being adapted to interact with at least a portion of the energy being propagated through the length of material in a manner that is detectable, the predetermined positions of the indicators providing information about the syringe configuration.

3. (Original) The syringe of Claim 1 wherein the indicator is adapted to absorb at least a portion of the energy or to scatter at least a portion of the energy.

4. (Withdrawn)

5. (Withdrawn)

6. (Original) The syringe of Claim 1 wherein the length of material is formed integrally with the syringe.

7. (Original) The syringe of Claim 6 wherein the length of material is a portion of the syringe wall.

8. (Original) The syringe of Claim 7 wherein the electromagnetic energy is light energy and the length of material has a refractive index greater than the refractive index of an adjacent environment.

9. (Original) The syringe of Claim 7 wherein the indicator is an angled surface in the syringe wall adapted to transmit light energy outside of the syringe wall.

10. (Original) The syringe of Claim 7 comprising at least a first plurality of indicators along the length of the syringe wall at unique predetermined positions, each of the indicators being adapted to interact with at least a portion of the energy being propagated through the length of the syringe wall in a manner that is detectable, the predetermined positions of the indicators providing information about the syringe configuration.

11. (Withdrawn)

12. (Original) The syringe of Claim 10 wherein the first plurality of indicators represents a first binary code.

13. (Original) The syringe of Claim 12 further comprising at least a second plurality of indicators along the length of the syringe wall at unique predetermined positions, the second plurality of indicators representing a second binary code.

14.-31. (Withdrawn)

32. (Currently Amended) A syringe for use with a powered injector to inject a fluid into a patient, the syringe comprising:

B2 a translucent length of material, the length of material including a plurality of indicators formed along the length of material, each of the indicators including a first, generally flat surface that is angled with respect to an orientation of light propagated through the length of material along the length of material to redirect at least a portion of the light in a manner that is readily detectable, the indicators providing information about the syringe configuration.

33. (Original) The syringe of Claim 32 wherein each indicator includes a notch in the length of material, the notch including a second surface through which the light passes to contact the first surface, the first surface reflecting a portion of the light.

34. (Withdrawn)

35. (Currently Amended) A syringe for use with a powered injector to inject a fluid into a patient, the syringe comprising:

B3 a length of material adapted to propagate electromagnetic energy therethrough along the length of the material, the length of material comprising including at least a first indicator positioned along the length of material, the first indicator a plurality of indicators along the length of the material at unique predetermined positions along the length of material, each of the indicators being adapted to interact with at least a portion of the energy being propagated through the length of material along the length of the material in a manner that is readily detectable, the first indicator providing information about the syringe configuration.

36. (Currently Amended) A syringe for use with a powered injector to inject a fluid into a patient, the syringe comprising:

B3 a length of the syringe wall being adapted to propagate electromagnetic energy therethrough along the length of the syringe wall, the syringe wall including a plurality of indicators [at least a first indicator] positioned along the length of syringe wall at unique predetermined positions, each of the indicators [the first indicator] being adapted to interact with at least a portion of the energy being propagated through the syringe wall in a manner that is detectable, the [first indicator] unique predetermined positions of the indicators providing information about the syringe configuration.

37. (Original) The syringe of Claim 36 wherein the electromagnetic energy is light energy and the syringe wall is adapted to propagate the light energy through the syringe wall in a direction generally parallel to the axis of the syringe.

38. (Original) The syringe of Claim 37 including at least a first plurality of indicators positioned along the syringe wall at different longitudinal positions, the first plurality of indicators representing a binary code providing information about the syringe configuration.

39. (Original) The syringe of Claim 36 wherein the syringe wall is generally cylindrical in shape and the syringe further includes at least a first plurality of indicators aligned along the syringe wall at different longitudinal positions such that a beam of light from a single light source can be propagated through the syringe wall in a direction generally parallel to the axis of the syringe to interact with each of the first plurality of indicators.

40. (Previously Added) The syringe of Claim 1, further comprising:

a body comprising a syringe wall, a rear end and a front end; and
a plunger movably disposed in the body.

41. (Previously Added) The syringe of Claim 40, further comprising at least one mounting flange associated with the body.

42. (Previously Added) The syringe of Claim 41, further comprising a drip flange associated with the main body.

43. (Previously Added) The syringe of Claim 41 wherein the length of material is associated with the body at a location between the rear end of the body and the at least one mounting flange.

44. (Currently Amended) The syringe of Claim 1 wherein ~~the at least a first indicator~~ each of the plurality of indicators comprises a groove formed around at least a portion of the circumference of the syringe.

45. (Previously Added) The syringe of Claim 44 wherein the groove extends along the circumference of the syringe.

46. (Currently Amended) The syringe of Claim 1 wherein ~~the at least a first indicator~~ each of the plurality of indicators comprises a first, generally flat surface that is angled with respect to an orientation of energy propagated through the length of material to redirect at least a portion of the energy in a manner that is readily detectable.

47. (Currently Amended) The syringe of Claim 46 wherein ~~the at least a first indicator~~ each of the plurality of indicators comprises a notch defined in the length of material, the notch comprising a second surface through which the energy passes to contact the first surface, the first surface reflecting a portion of the energy.

48. (Previously Added) The syringe of Claim 47 wherein the first surface is angled at approximately 45° to the orientation of the energy propagated through the length of material.

49. (Previously Added) The syringe of Claim 1 wherein the electromagnetic energy is light energy and the length of material is adapted to propagate the light energy therethrough in a direction generally parallel to the axis of the syringe.